

## SEQUENCE LISTING

<110> Monteiro, et al.

<120> Method of Controlling the Binding of Calmyrin to Presenilin

<130> 4115-161

<150> 60/210,939

<151> 2000-06-11

<160> 26

<170> PatentIn version 3.1

<210> 1

<211> 448

<212> PRT

<213> Homo sapiens

<400> 1

Met Leu Thr Phe Met Ala Ser Asp Ser Glu Glu Glu Val Cys Asp Glu  
1 5 10 15

Arg Thr Ser Leu Met Ser Ala Glu Ser Pro Thr Pro Arg Ser Cys Gln  
20 25 30

Glu Gly Arg Gln Gly Pro Glu Asp Gly Glu Asn Thr Ala Gln Trp Arg  
35 40 45

Ser Gln Glu Asn Glu Glu Asp Gly Glu Glu Asp Pro Asp Arg Tyr Val  
50 55 60

Cys Ser Gly Val Pro Gly Arg Pro Pro Gly Leu Glu Glu Glu Leu Thr  
65 70 75 80

Leu Lys Tyr Gly Ala Lys His Val Ile Met Leu Phe Val Pro Val Thr  
85 90 95

Leu Cys Met Ile Val Val Val Ala Thr Ile Lys Ser Val Arg Phe Tyr  
100 105 110

Thr Glu Lys Asn Gly Gln Leu Ile Tyr Thr Pro Phe Thr Glu Asp Thr  
 115 120 125

Pro Ser Val Gly Gln Arg Leu Leu Asn Ser Val Leu Asn Thr Leu Ile  
 130 135 140

Met Ile Ser Val Ile Val Val Met Thr Ile Phe Leu Val Val Leu Tyr  
 145 150 155 160

Lys Tyr Arg Cys Tyr Lys Phe Ile His Gly Trp Leu Ile Met Ser Ser  
 165 170 175

Leu Met Leu Leu Phe Leu Phe Thr Tyr Ile Tyr Leu Gly Glu Val Leu  
 180 185 190

Lys Thr Tyr Asn Val Ala Met Asp Tyr Pro Thr Leu Leu Leu Thr Val  
 195 200 205

Trp Asn Phe Gly Ala Val Gly Met Val Cys Ile His Trp Lys Gly Pro  
 210 215 220

Leu Val Leu Gln Gln Ala Tyr Leu Ile Met Ile Ser Ala Leu Met Ala  
 225 230 235 240

Leu Val Phe Ile Lys Tyr Leu Pro Glu Trp Ser Ala Trp Val Ile Leu  
 245 250 255

Gly Ala Ile Ser Val Tyr Asp Leu Val Ala Val Leu Cys Pro Lys Gly  
 260 265 270

Pro Leu Arg Met Leu Val Glu Thr Ala Gln Glu Arg Asn Glu Pro Ile  
 275 280 285

Phe Pro Ala Leu Ile Tyr Ser Ser Ala Met Val Trp Thr Val Gly Met  
 290 295 300

Ala Lys Leu Asp Pro Ser Ser Gln Gly Ala Leu Gln Leu Pro Tyr Asp  
 305 310 315 320

Arg Phe Cys Glu Leu Leu Pro Gln Glu Gln Arg Thr Val Glu Ser Ser  
35 40 45

Leu Arg Ala Gln Val Pro Phe Glu Gln Ile Leu Ser Leu Pro Glu Leu  
50 55 60

Lys Ala Asn Pro Phe Lys Glu Arg Ile Cys Arg Val Phe Ser Thr Ser  
65 70 75 80

Pro Ala Lys Asp Ser Leu Ser Phe Glu Asp Phe Leu Asp Leu Leu Ser  
85 90 95

Val Phe Ser Asp Thr Ala Thr Pro Asp Ile Lys Ser His Tyr Ala Phe  
100 105 110

Arg Ile Phe Asp Phe Asp Asp Asp Gly Thr Leu Asn Arg Glu Asp Leu  
115 120 125

Ser Arg Leu Val Asn Cys Leu Thr Gly Glu Gly Glu Asp Thr Arg Leu  
130 135 140

Ser Ala Ser Glu Met Lys Gln Leu Ile Asp Asn Ile Leu Glu Glu Ser  
145 150 155 160

Asp Ile Asp Arg Asp Gly Thr Ile Asn Leu Ser Glu Phe Gln His Val  
165 170 175

Ile Ser Arg Ser Pro Asp Phe Ala Ser Ser Phe Lys Ile Val Leu  
180 185 190

<210> 3

<211> 467

<212> PRT

<213> Homo sapiens

<400> 3

Met Thr Glu Leu Pro Ala Pro Leu Ser Tyr Phe Gln Asn Ala Gln Met  
1 5 10 15

Ser Glu Asp Asn His Leu Ser Asn Thr Val Arg Ser Gln Asn Asp Asn  
20 25 30

Arg Glu Arg Gln Glu His Asn Asp Arg Arg Ser Leu Gly His Pro Glu  
35 40 45

Pro Leu Ser Asn Gly Arg Pro Gln Gly Asn Ser Arg Gln Val Val Glu  
50 55 60

Gln Asp Glu Glu Glu Asp Glu Glu Leu Thr Leu Lys Tyr Gly Ala Lys  
65 70 75 80

His Val Ile Met Leu Phe Val Pro Val Thr Leu Cys Met Val Val Val  
85 90 95

Val Ala Thr Ile Lys Ser Val Ser Phe Tyr Thr Arg Lys Asp Gly Gln  
100 105 110

Leu Ile Tyr Thr Pro Phe Thr Glu Asp Thr Glu Thr Val Gly Gln Arg  
115 120 125

Ala Leu His Ser Ile Leu Asn Ala Ala Ile Met Ile Ser Val Ile Val  
130 135 140

Val Met Thr Ile Leu Leu Val Val Leu Tyr Lys Tyr Arg Cys Tyr Lys  
145 150 155 160

Val Ile His Ala Trp Leu Ile Ile Ser Ser Leu Leu Leu Leu Phe Phe  
165 170 175

Phe Ser Phe Ile Tyr Leu Gly Glu Val Phe Lys Thr Tyr Asn Val Ala  
180 185 190

Val Asp Tyr Ile Thr Val Ala Leu Leu Ile Trp Asn Phe Gly Val Val  
195 200 205

Gly Met Ile Ser Ile His Trp Lys Gly Pro Leu Arg Leu Gln Gln Ala  
210 215 220

Tyr Leu Ile Met Ile Ser Ala Leu Met Ala Leu Val Phe Ile Lys Tyr  
225 230 235 240

Leu Pro Glu Trp Thr Ala Trp Leu Ile Leu Ala Val Ile Ser Val Tyr  
 245 250 255  
 Asp Leu Val Ala Val Leu Cys Pro Lys Gly Pro Leu Arg Met Leu Val  
 260 265 270  
 Glu Thr Ala Gln Glu Arg Asn Glu Thr Leu Phe Pro Ala Leu Ile Tyr  
 275 280 285  
 Ser Ser Thr Met Val Trp Leu Val Asn Met Ala Glu Gly Asp Pro Glu  
 290 295 300  
 Ala Gln Arg Arg Val Ser Lys Asn Ser Lys Tyr Asn Ala Glu Ser Thr  
 305 310 315 320  
 Glu Arg Glu Ser Gln Asp Thr Val Ala Glu Asn Asp Asp Gly Gly Phe  
 325 330 335  
 Ser Glu Glu Trp Glu Ala Gln Arg Asp Ser His Leu Gly Pro His Arg  
 340 345 350  
 Ser Thr Pro Glu Ser Arg Ala Ala Val Gln Glu Leu Ser Ser Ser Ile  
 355 360 365  
 Leu Ala Gly Glu Asp Pro Glu Glu Arg Gly Val Lys Leu Gly Leu Gly  
 370 375 380  
 Asp Phe Ile Phe Tyr Ser Val Leu Val Gly Lys Ala Ser Ala Thr Ala  
 385 390 395 400  
 Ser Gly Asp Trp Asn Thr Thr Ile Ala Cys Phe Val Ala Ile Leu Ile  
 405 410 415  
 Gly Leu Cys Leu Thr Leu Leu Leu Leu Ala Ile Phe Lys Lys Ala Leu  
 420 425 430  
 Pro Ala Leu Pro Ile Ser Ile Thr Phe Gly Leu Val Phe Tyr Phe Ala

435

440

445

Thr Asp Tyr Leu Val Gln Pro Phe Met Asp Gln Leu Ala Phe His Gln  
 450 455 460

Phe Tyr Ile  
 465

<210> 4  
 <211> 34  
 <212> DNA  
 <213> Homo sapiens

<400> 4  
 gctgagtacg ctcgaggtag gggagctgga gggc  
 34

<210> 5  
 <211> 31  
 <212> DNA  
 <213> Homo sapiens

<400> 5  
 cgcttctgga attccccaaa gggcctctga g  
 31

<210> 6  
 <211> 33  
 <212> DNA  
 <213> Homo sapiens

<400> 6  
 gctagcatcg ctcgagccac accatggcag atg  
 33

<210> 7  
 <211> 29  
 <212> DNA  
 <213> Homo sapiens

<400> 7  
 cgcttctgga attccccacg gttggcatg  
 29

<210> 8  
 <211> 33  
 <212> DNA  
 <213> Homo sapiens

<400> 8  
 tatcgcttaa gtcgacgatg tagagctgat ggg  
 33

<210> 9  
 <211> 28  
 <212> DNA  
 <213> Homo sapiens

<400> 9  
 cggtagctga attcaagaag gcgctgcc  
 28

<210> 10  
 <211> 33  
 <212> DNA  
 <213> Homo sapiens

<400> 10  
 gctagcatcg ctcgagatac ttggaatttt tgg  
 33

<210> 11  
 <211> 33  
 <212> DNA  
 <213> Homo sapiens

<400> 11  
 cgtcatcagc gaattcccga aaggtccact tcg  
 33

<210> 12  
 <211> 33  
 <212> DNA  
 <213> Homo sapiens

<400> 12  
 ctcgcctagc ctcgagccac accattgttg agg  
 33

<210> 13



<211> 37  
 <212> DNA  
 <213> Homo sapiens

<400> 13  
 tcgtgaggat cctcgagcta ctggagccgc gacaggc  
 37

<210> 14  
 <211> 34  
 <212> DNA  
 <213> Homo sapiens

<400> 14  
 ctagacctga attcccaatg gcgactgcga cccc  
 34

<210> 15  
 <211> 34  
 <212> DNA  
 <213> Homo sapiens

<400> 15  
 cgagtagcat gtcgaccagg acaatcttaa agga  
 34

<210> 16  
 <211> 33  
 <212> DNA  
 <213> Homo sapiens

<400> 16  
 gctacactag ccgcgggaat tcggcacgag gcg  
 33

<210> 17  
 <211> 34  
 <212> DNA  
 <213> Homo sapiens

<400> 17  
 cgagtagcat gtcgactcac aggacaatct taaa  
 34

<210> 18  
 <211> 74

<212> DNA  
<213> Homo sapiens

<400> 18  
gctacactag ccgcggccac catggagcaa aagctcattt ctgaagagga cttgaatcgc  
60

ggcggggcga tggg  
74

<210> 19  
<211> 41  
<212> DNA  
<213> Homo sapiens

<400> 19  
gcatgttcat ggatccgcgg ggcgatggcg ggctcgggca g  
41

<210> 20  
<211> 34  
<212> DNA  
<213> Homo sapiens

<400> 20  
cgagtagcat gtcgactcac aggacaatct taaa  
34

<210> 21  
<211> 27  
<212> DNA  
<213> Homo sapiens

<400> 21  
ccttgaacag agaaaacctg agccggc  
27

<210> 22  
<211> 27  
<212> DNA  
<213> Homo sapiens

<400> 22  
gccggctcag gttttctctg ttcaagg  
27

<210> 23  
 <211> 27  
 <212> DNA  
 <213> Homo sapiens

<400> 23  
 ccatcaacct ctctcagttc cagcacg  
 27

<210> 24  
 <211> 27  
 <212> DNA  
 <213> Homo sapiens

<400> 24  
 cgtgctggaa ctgagagagg ttgatgg  
 27

<210> 25  
 <211> 2285  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (2137)..(2137)  
 <223> n can be a, c, t or g

<220>  
 <221> misc\_feature  
 <222> (2144)..(2144)  
 <223> n can be a, c, t or g

<220>  
 <221> misc\_feature  
 <222> (2152)..(2152)  
 <223> n can be a, c, t or g

<220>  
 <221> misc\_feature  
 <222> (2157)..(2157)  
 <223> n can be a, c, t or g

<220>  
 <221> misc\_feature

<222> (2160)..(2160)  
 <223> n can be a, c, t or g

<220>  
 <221> misc\_feature  
 <222> (2163)..(2163)  
 <223> n can be a, c, t or g

<220>  
 <221> misc\_feature  
 <222> (2180)..(2180)  
 <223> n can be a, c, t or g

<220>  
 <221> misc\_feature  
 <222> (2203)..(2203)  
 <223> n can be a, c, t or g

<220>  
 <221> misc\_feature  
 <222> (2213)..(2213)  
 <223> n can be a, c, t or g

<220>  
 <221> misc\_feature  
 <222> (2216)..(2216)  
 <223> n can be a, c, t or g

<220>  
 <221> misc\_feature  
 <222> (2225)..(2225)  
 <223> n can be a, c, t or g

<400> 25  
 gaattcggca cgagggcatt tccagcagtg aggagacagc cagaagcaag cttttggagc  
 60  
 tgaaggaacc tgagacagaa gctagtcgcc cctctgaatt ttactgatga agaaactgag  
 120  
 gccacagagc taaagtgact tttcccaagg tcgcccagcg aggacgtggg acttctcaga  
 180  
 cgtcaggaga gtgatgtgag ggagctgtgt gaccatagaa agtgacgtgt taaaaaccag

240

cgctgccctc tttgaaagcc agggagcatc attcatttag cctgctgaga agaagaaacc  
300

aagtgtccgg gattcaagac ctctctgcg ccccaagtgt tcgtggtgct tccagaggca  
360

gggctatgct cacattcatg gcctctgaca gcgaggaaga agtgtgtgat gagcggacgt  
420

ccctaattgtc ggccgagagc cccacgccgc gctcctgcca ggagggcagg cagggcccag  
480

aggatggaga gaatactgcc cagtggagaa gccaggagaa cgaggaggac ggtgaggagg  
540

accctgaccg ctatgtctgt agtggggttc ccgggcggcc gccaggcctg gaggaagagc  
600

tgaccctcaa atacggagcg aagcatgtga tcatgctggt tgtgcctgtc actctgtgca  
660

tgatcgtggt ggtagccacc atcaagtctg tgcgcttcta cacagagaag aatggacagc  
720

tcatctacac gccattcact gaggacacac cctcgggtggg ccagcgcctc ctcaactccg  
780

tgctgaacac cctcatcatg atcagcgta tcgtgggttat gaccatcttc ttggtggtgc  
840

tctacaagta ccgctgctac aagttcatcc atggctgggt gatcatgtct tcatgatgc  
900

tgctgttcct cttcacctat atctaccttg gggaagtgt caagacctac aatgtggcca  
960

tggactaccc caccctcttg ctgactgtct ggaacttcgg ggcagtgggc atggtgtgca  
1020

tccactggaa gggccctctg gtgctgcagc aggcctacct catcatgac agtgcgctca  
1080

tggccctagt gttcatcaag tacctcccag agtgggtccgc gtgggtcatc ctgggcgcca  
1140

tctctgtgta tgatctcgtg gctgtgctgt gtcccaaagg gcctctgaga atgctggtag  
1200

aaactgcccc ggagagaaat gagcccatat tccctgccct gatataactca tctgccatgg

1260

tgtggacggt tggcatggcg aagctggacc cctcctctca gggtgccctc cagctcccct  
1320

acgacccgga gatggaagaa gactcctatg acagttttgg ggagccttca taccgccgaag  
1380

tctttgagcc tcccttgact ggctacccag gggaggagct ggaggaagag gaggaaggg  
1440

gcgtgaagct tggcctcggg gacttcatct tctacagtgt gctgggtgggc aaggcggctg  
1500

ccacgggcag cggggactgg aataccacgc tggcctgctt cgtggccatc ctcattggct  
1560

tgtgtctgac cctcctgctg cttgctgtgt tcaagaaggc gctgcccgcc ctccccatct  
1620

ccatcacgtt cgggctcatc ttttacttct ccacggacaa cctgggtgcgg ccgttcatgg  
1680

acaccctggc ctcccatcag ctctacatct gagggacatg gtgtgccaca ggctgcaagc  
1740

tgcagggaat tttcattgga tgcagttgta tagttttaca ctctagtgcc atatattttt  
1800

aagacttttc tttccttaaa aaataaagta cgtgtttact tgggtgaggag gaggcagaac  
1860

cagctctttg gtgccagctg tttcatcacc agactttggc tcccgctttg gggagcgcct  
1920

cgcttcacgg acaggaagca cagcaggttt atccagatga actgagaagg tcagattagg  
1980

gtggggagaa gagcatccgg catgagggct gagatgccca aagagtgtgc tcgggagtgg  
2040

cccctggcac ctgggtgctc tggctggaga ggaaaagcca gttccctacg aggagtgttc  
2100

ccaatgcttt gtccatgatg tccttggtat tttattncyy ttanaaactg antcctnttn  
2160

ttnttdcggc agtcacmctn ctgggragtg gcttaatagt aanatcaata aanagntgag  
2220

tcctnttaga aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa

2280

aaaaa  
2285

<210> 26  
 <211> 885  
 <212> DNA  
 <213> Homo sapiens

<400> 26  
 tctcccgaat tcggcacgag gcggcgtctc gaggcgagtt ggcggagctg tgcgcgcggc  
 60  
 ggggcgatgg ggggctcggg cagtcgcctg tccaaggagc tgctggccga gtaccaggac  
 120  
 ttgacgttcc tgacgaagca ggagatcctc ctagcccaca ggcggttttg tgagctgctt  
 180  
 ccccaggagc agcggaccgt ggagtcgtca cttcgggcac aagtgccctt cgagcagatt  
 240  
 ctcagccttc cagagctcaa ggccaacccc ttcaaggagc gaatctgcag ggtcttctcc  
 300  
 acatccccag ccaaagacag ccttagcttt gaggacttcc tggatctcct cagtgtgttc  
 360  
 agtgacacag ccacgccaga catcaagtcc cattatgcct tccgcatctt tgactttgat  
 420  
 gatgacggaa ccttgaacag agaagacctg agccggctgg tgaactgcct cacgggagag  
 480  
 ggcgaggaca cacggcttag tgcgtctgag atgaagcagc tcatcgacaa catcctggag  
 540  
 gagtctgaca ttgacagggg tggaaccatc aacctctctg agttccagca cgtcatctcc  
 600  
 cgttctccag actttgccag ctcttttaag attgtcctgt gacagcagcc ccagcgtgtg  
 660  
 tcctggcacc ctgtccaaga acctttctac tgctgagctg tggccaaggt caagcctgtg  
 720  
 ttgccagtgc gggccaagct ggcccagcct ggagctggcg ctgtgcagcc tcaccccggg  
 780

tttgtactaa tcagtaataa aggtttagaa gtttgaccct aaaaa  
885

Year	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	